# **Feasibility Report**

# **CSAH 19 (Woodbury Drive) Mobility and Safety Improvement Project**

Final Report

City of Woodbury, MN

Prepared by:



Date: December 2020

City Project No. 26-2018-01, SAP 192-020-029, SAP 192-119-003

SRF No. 019 11609

### **TOC Title: Table of Contents**

Introduction	1
Public Engagement	2
Required Improvements	3
Storm Sewer	3
Streets	3
Crash Analysis	4
Traffic Volume Forecasts	4
Recommended Cross Section	4
Woodbury Drive/Dale Road Intersection	5
Access	5
Pedestrians and Bicyclists	5
Construction Staging	5
Landscaping	5
Watermain	6
Permits and Easements Required	7
Estimated Costs	8
Cost Allocation	10
Financing	13
Schedule	14
Feasibility and Recommendations	15
Appendix	16
A: Project Layout	17
B: Construction Cost Estimate	18
C: Benefited Properties Man	19

I hereby certify that this report was prepared by me or under my direct supervision, a	ind that I
am a duly Licensed Professional Engineer under the laws of the State of Minnesota.	

Name:	Dint John
Date:	12/28/2020
License No :	26815

### Introduction

A corridor study was conducted along 8,524 feet of CSAH 19 (Woodbury Drive) from Glacial Valley Road to CSAH 18 (Bailey Road), and along 2,171 feet of Dale Road, in coordination with Washington County and the City of Woodbury to determine near and long-term plans to accommodate current and planned developments while improving the safety, operations, access, stormwater management, and bike/pedestrian accommodations along the corridor. The study recommends that Woodbury Drive from Dale Road to Ambrose Road should be expanded from a two-lane rural roadway to a four-lane divided urban roadway with turn lanes. The project will include construction of a multi-lane roundabout at the intersection of Woodbury Drive and Dale Road. Multi-use trails, separated by a boulevard, will also be constructed on one or both sides of Woodbury Drive and along portions of Dale Road. The Woodbury Drive project will provide a critical link to the Central Greenway Regional Trail system.

Figures showing the general location and layout of the proposed improvements are provided in the Appendix.

### **Public Engagement**

Washington County, in partnership with the City of Woodbury, hosted a neighborhood Open House regarding planned improvements to Woodbury Drive and Dale Road on January 9, 2019 at Woodbury City Hall. Attendees learned about the project background, traffic analysis, design process, schedule, and were allowed to ask questions, provide feedback and share ideas. Approximately 20 residents in the project area attended the meeting. Primary issues noted by the attendees included concerns over safety at the Woodbury Drive/Dale Road intersection. Many expressed the desire for a roundabout at that location.

Subsequently, a Project Newsletter was developed and widely distributed in the Fall of 2019 that contained a project progress update and a graphical depiction of the planned project. It was noted that the solution identified would best respond to the project goals by improving safety and mobility, properly manage storm water runoff, account for public utility needs, and provide a critical link in the Central Greenway Regional Trail. It was noted that the intersection of Woodbury Drive and Dale Road would be converted to a roundabout, similar to other intersections to the north.

An updated Project Newsletter was widely distributed in the Spring of 2020 that contained a project update and conceptual construction staging plans and planned detour routes.

In both 2019 and 2020, residents, church leaders and developers along the project area were actively engaged by City/County staff. City staff proactively met with each property owner individually throughout the project process to hear and respond to their individual comments and requests. A Project Brochure was also created for distribution at the various model homes in the new developments, so prospective home buyers would know about planned improvements in the area.

### **Required Improvements**

#### **Storm Sewer**

The project is located within the South Washington Watershed District (SWWD) and will disturb an area of 30.5 acres. Converting CSAH 19 to a four-lane divided urban roadway from a two-lane rural roadway adds 7.1 acres of new impervious area. A Minnesota Pollution Control Agency (MPCA) National Pollution Discharge Elimination System (NPDES) permit will be required prior to the start of construction.

The project will require construction of a new storm sewer system and an infiltration basin, providing treatment for 2.86 acres of impervious area, located in the southwest quadrant of Woodbury Drive and Dale Road on the parcel owned by Washington County. The rest of the project requirements will be provided by discharging to adjacent developments storm sewer and/or Best Management Practices (BMPs). The project will take credit for 0.62 acres and 0.98 acres of impervious area allowed to drain to the Glen View Farms and Highcroft Developments, respectively. Water quality volume equivalent to the runoff from 3.58 acres of impervious area will be met via a regional BMP constructed as a part of the Briarcroft development. All water quality volume, rate control, and floodplain mitigation will be provided within these 4 locations. There are no wetlands impacted as a part of this project.

#### **Streets**

Currently, most of the Woodbury Drive corridor in the project area is a two-lane roadway with turn lanes at certain intersections. The current roadway geometry is not expected to sufficiently accommodate future growth and planned development. The purpose of this project is to expand capacity on Woodbury Drive and prepare for current and future needs of the corridor. Field observations were conducted to identify roadway characteristics within the project area (i.e. roadway geometry, posted speed limits, intersection traffic controls, and pedestrian/bike accommodations):

- Woodbury Drive is a two-lane undivided roadway from south of Dale Road to approximately 900 feet south of Bailey Road where it transitions to a four-lane divided road.
- Woodbury Drive is functionally classified as an A-Minor Expander Arterial (which
  prioritizes mobility rather than direct land access) with a posted speed limit of 55 miles
  per hour (mph).
- Dale Road is a two-lane undivided roadway and is functionally classified as a Minor Collector with a statutory speed limit of 50 mph.
- The Woodbury Drive/Dale Road intersection is side-street stop controlled with stop control on Dale Road. There are right-turn lanes from Woodbury Drive onto Dale Road.

- There is a southbound left-turn lane and northbound right-turn lane into the St. Ambrose church at the north end of the corridor. Woodbury Drive transitions from a two-lane undivided roadway to a four-lane divided roadway at this intersection.
- On Dale Road, west of Woodbury Drive, there is a sharp vertical curve with a general stopping sight distance of approximately 190 feet, which is close to a 25-mph design speed. The proposed design will flatten this curve and improve sight distance along Dale Road.
- There are currently no off-road pedestrian/bike facilities along Woodbury Drive or Dale Road, however, new developments have integrated them.

#### **Crash Analysis**

Five years of crash data (2013 to 2017) were obtained from the Minnesota Crash Mapping and Analysis Tool (MnCMAT) data and Washington County for the study intersections and segments between the intersections. There was a total of nine crashes at the Woodbury Drive/Dale Road intersection, with one resulting in incapacitating injuries, four possible injury crashes, and four property damage only (PDO) crashes. This intersection is also above the critical crash rate, which indicates that more crashes have occurred at this intersection than intersections with similar characteristics around the state.

#### **Traffic Volume Forecasts**

The 2040 Washington County Travel Demand Model was used as the basis for estimating the 2040 traffic forecasts along the corridor. There are four developments along the study corridor, Fair Haven, Glen View Farm, Highcroft, and Briarcroft, which are all accounted for in the 2040 Washington County Travel Demand Model and correspond to the forecasts in the 2040 Comprehensive Plan.

The existing average daily traffic (ADT) volume along CSAH 19 between Dale Road and Bailey Road is 6,200 vehicles. By 2040 traffic volumes are expected to increase to 12,900 vehicles.

#### **Recommended Cross Section**

A four-lane cross-section is recommended for Woodbury Drive to improve operations at the Woodbury Drive/Dale Road intersection and other intersections along the corridor. A four-lane cross-section would also accommodate future development traffic, while also reducing delays for traffic turning onto Woodbury Drive. This is consistent with the Washington County 2040 Comprehensive Plan and the Woodbury 2040 Comprehensive Plan that identify this segment of Woodbury Drive as a corridor for expansion. Dale Road would be expanded into a three-lane roadway through the project limits.

#### **Woodbury Drive/Dale Road Intersection**

The Woodbury Drive/Dale Road intersection is expected to fail in the future with existing sidestreet stop control. Based on the Intersection Control Evaluation report that was completed for this intersection, it is recommended to convert this intersection from side-street stop control to a roundabout.

#### **Access**

Access to the ongoing developments will be provided at or near the previously agreed-to locations that meet access spacing guidelines. The exception is the full-access at Arrowwood Trail that is approximately 1/5 miles from the Woodbury Drive/Dale Road intersection, which does not meet access spacing guidelines. Note that the first full-access north of Dale Road may need to be converted to a 3/4 access in the future if operational or safety issues arise at this location.

#### **Pedestrians and Bicyclists**

Multi-use trails will be constructed on both sides of Woodbury Drive from Dale Road to Bailey Road; along the west side of Woodbury Drive between Dale Road and Glacial Valley Road; and along the north side of Dale Road. The trails will be 10 feet wide, separated from the road by a variable width boulevard, creating improved pedestrian safety, mobility and connectivity.

#### **Construction Staging**

Woodbury Drive is planned to generally remain open to traffic during construction by utilizing a temporary bypass at Dale Road to aid in construction of the roundabout. Dale Road will undergo some short-term closures to facilitate construction, but access will still be provided with detour routes.

#### Landscaping

A separate landscaping plan is being developed for the project that will consist of plantings in the wide median areas and the central island of the roundabout. Irrigation will need to be extended to these areas as part of the road project.

#### Watermain

There is an existing trunk watermain along the east side of Woodbury Drive that was recently constructed by the City of Woodbury to serve the new developments. City staff has determined that, as part of this project, they will stub a new watermain line to the west at Dale Road to end at a new hydrant by the church. This stub will be under the planned roundabout which is to be constructed with concrete pavement. Therefore, the stub will need to be encased where it is under Woodbury Drive until it can be accessed without major impacts to the roadway.

Several residents along Dale Road expressed interest in petitioning to connect to the City's water supply. These costs would include an 8 inch watermain along the north side of Dale Road as well as water services extended to the right of way where residents would then hire an independent contractor to connect their homes to the provided curb stop. Along the north side of Dale Road where the watermain was being proposed, the City requested that a drainage and utility easement be granted to the City for the watermain to be installed and maintained. It should be noted that this section of watermain is not necessary to the City's trunk water distribution system at this time, but only for water service to the adjacent properties.

Because residents showed interest in water services, the City went through the process to determine approximate costs that would be charged back to residents. Once those final costs where provided back to the residents, the required minimum 35 percent of property owners did not provide petitions to initiate the improvements as required by Minnesota State Statutes 429. Therefore, water services and associated assessments won't be included in the scope or cost estimates for this project.

# **Permits and Easements Required**

Washington County will acquire the following required permits for this project:

 National Pollutant Discharge Elimination System (NPDES) permit from the Minnesota Pollution Control Agency (MPCA)

Right of Way and easements will be acquired for this project by Washington County.

### **Estimated Costs**

The following table shows the breakdown of the total estimated project costs based on the 95% complete plan set, preliminary right of way costs, design engineering and construction administration for the project based on the County Cost Participation Policy. The policy requires the City to fund 50% of concrete curb and gutter and 50% of the trail construction. The City will fund the improvements to Dale Road. Mobilization, traffic control, and erosion control are calculated based on the percentage of construction cost.

ROADWAY	CONST. COSTS	DESIGN ENGINEERING	CONSTRUCTION ADMINISTRATION	EASEMENTS	TOTALS
Woodbury Dr	ive (CSAH 19) S.A	.P. 082-619-030 (Co	ounty), S.A.P. 192-02	20-029 (City)	
County Roadway & Storm	\$6,377,692	\$625,578	\$522,815	\$47,306	\$7,573,392
County Landscape	\$157,500	\$0	\$0		\$157,500
				County Total	\$7,730,892
City Roadway	\$1,008,134	\$124,781	\$104,264	\$57,819	\$1,294,998
City Storm	\$10,673	\$0	\$0		\$10,673
City Utilities	\$127,055	\$0	\$0		\$127,055
City LS	\$157,500	\$0	\$0		\$157,500
				City Total	\$1,590,226
				CSAH 19 Total	\$9,321,118
Dale Road S.A	A.P. 192-119-003				
City Roadway	\$1,588,734	\$167,584	\$140,029	\$83,865	\$1,980,211
City Storm	\$161,568	\$0	\$0		\$161,568
				Dale Road Total	\$2,141,779
Total County Costs	\$6,535,192	\$625,578	\$522,815	\$47,306	\$7,730,892
Total City Costs	\$3,053,664	\$292,364	\$244,293	\$141,684	\$3,732,005
		1	T	otal All Project Costs	\$11,462,897

### **Cost Allocation**

Woodbury Drive is functionally classified as an A-Minor Expander Arterial and Dale Road is functionally classified as a Minor Collector. It is proposed that the project costs be assessed to the benefited properties utilizing the City's "Roadway Construction and Rehabilitation Financing Policy, Council Directive CD-ENGPW-4.2, revised October 25, 2017."

The Benefited Properties Map in the Appendix shows the properties proposed to be assessed for the improvements. The land use adjacent to Woodbury Drive and Dale Road consists mostly of Residential and Public/Semi-Public. Some residential properties are currently outside the Metropolitan Urban Service Area (M.U.S.A.).

#### Per the City's Policy;

- Public/Semi-Public land uses located within the M.U.S.A., and adjacent to a Minor Arterial/Collector Roadways; will be allocated 75% of the improvement cost based on their adjacent lineal frontage to the street being constructed or rehabilitated based on the average cost per foot of roadway improvement.
- Residential land uses located within the M.U.S.A., and adjacent to a Minor Arterial/Collector
  Roadways; the per residential lot/unit is calculated based on the average allocated cost per foot of
  roadway improvement multiplied by the total benefited residential property frontage and divided by
  the total number of lots/units.
- Any property outside the M.U.S.A., and immediately adjacent to Minor Arterial/Collector Roadways;
   will be allocated cost based on fees set by Council of estimated benefit received as a result of the improvements.

There is one large undeveloped parcel (PAR 16) zoned as low density residential in the southeast quadrant of Woodbury Drive and Dale Road. It is proposed to convert the frontage of this parcel to equivalent residential units (ERU) based on the average residential lot width of 66 feet and apply the City's policy for residential land uses located within the M.U.S.A and adjacent to a Minor Arterial/Collector Roadway to these lots. This is the same methodology used on previous projects including the 2019 Roadway Rehabilitation Project.

The following table lists the benefitted properties for the entire project area, along with the total assessment calculated per the City's assessment policy:

PAR	PIN	ADDRESS	FEE OWNER	Parcel	PROPOSED	PROPOSED	PROPOSED
				Area	ROADWAY	WATERMAIN	ASSESSMENT
				(Acres)	ASSESSMENT	ASSESSMENT	TOTAL
1	34-028-	5200	John &	7.25	\$6,500	\$0	\$ 6,500
	21-11-	Woodbury	Colette				
	0012	Drive,	Brietkrietz				
		Woodbury					
		MN 55129					

PAR	PIN	ADDRESS	FEE OWNER	Parcel	PROPOSED	PROPOSED	PROPOSED
				Area	ROADWAY	WATERMAIN	ASSESSMENT
				(Acres)	ASSESSMENT	ASSESSMENT	TOTAL
2	34-028-	5180	Timothy	1	\$5,000	\$7,969	\$ 12,969
	21-11-	Woodbury	Harris Rev				
	0006	Drive,	Trust				
		Woodbury					
		MN 55129					
3	34-028-	5146	Allen &	2.18	\$5,000	\$0	\$ 5,000
	21-11-	Woodbury	Davette				
	0002	Drive,	Johnson				
		Woodbury					
	24.020	MN 55129	72 . 1 . 2	2.10	<b>*</b> • • • • • • • • • • • • • • • • • • •	**	* =
4	34-028-	5096	Patrick &	2.18	\$5,000	\$0	\$ 5,000
	21-11-	Woodbury	Brenda				
	0011	Drive,	Dallager				
		Woodbury MN 55129					
	34-028-	5076	Chad G	2.62	<b>\$</b> F,000	\$0	<b>\$</b> 5,000
5	34-028- 21-11-	Woodbury	Sanders	2.62	\$5,000	\$0	\$ 5,000
	0009	Drive,	Sanders				
	0007	Woodbury					
		MN 55129					
6	34-028-	9935 Dale	Corey D	1	\$5,000	\$0	\$ 5,000
	21-11-	Road,	Culver	1	₩ <b>2,</b> 000	₩~	Ψ 3,000
	0005	Woodbury	Guivei				
		MN 55129					
7	34-028-	9905 Dale	Christopher J	1.54	\$5,000	\$0	\$ 5,000
	21-11-	Road,	Wiege		,		. ,
	0004	Woodbury					
		MN 55129					
8	27-028-	9810 Dale	Gary & Julie	4.5	\$0	\$0	\$ 0
	21-44-	Road,	Lavalle				
	0005	Woodbury					
		MN 55129					
9	27-028-	9840 Dale	Dennis &	2.59	\$0	\$0	\$ 0
	21-44-	Road,	Polly Kegler				
	0004	Woodbury					
10	07.000	MN 55129	M at 0	0.50	<b>#F 22</b> F	фO	ф гоог
10	27-028-	9880 Dale	Matthew &	2.59	\$5,225	\$0	\$ 5,225
	21-44- 0002	Road, Woodbury	Cambri Halleckson				
	0002	MN 55129	Taneckson				
11	27-028-	4920	Church of	5.74	\$22,325	\$0	\$ 22,325
11	21-44-	Woodbury	Christ	3.77	Ψ <i>Δ</i> Δ, <i>J</i> Δ, <i>J</i>	ΨΟ	Ψ <i></i> -, <i>-</i> //-
	0009	Drive,	Ciniot				
		Woodbury					
		MN 55129					
			I.	L	ı	I.	

PAR	PIN	ADDRESS	FEE OWNER	Parcel	PROPOSED	PROPOSED	PROPOSED
				Area	ROADWAY	WATERMAIN	ASSESSMENT
				(Acres)	ASSESSMENT	ASSESSMENT	TOTAL
12	27-028-	4874	Hartung	1.5	\$5,225	\$0	\$ 5,225
	21-44-	Woodbury	Loren E				
	0006	Drive,					
		Woodbury					
		MN 55129					
13	27-028-	4850	Metropolitan	7.35	\$5,700	\$0	\$ 5,700
	21-41-	Woodbury	Council &				
	0002	Drive,	Metro Transit				
		Woodbury	Finance				
		MN 55129	Division				
14	27-028-	4540	Notebaart	5	\$6,365	\$0	\$ 6,365
	21-41-	Woodbury	Thomas E				
	0001	Drive,					
		Woodbury					
		MN 55129					
15	26-028-	4125	Church of St	80.49	\$87,875	\$0	\$ 87,875
	21-22-	Woodbury	Ambrose				
	0001	Drive,					
		Woodbury					
		MN 55129					
16	35-028-	10035 Dale	Wozniak	39.79	\$91,107	\$0	\$ 91,107
	21-22-	Road	Daniel D				
	0001	Woodbury,	ETAL				
		MN 55129					
	TO	TAL PROPOSEI	D ASSESSMENT		\$260,322	\$7,969	\$268,291

<sup>\*</sup>City of Woodbury assessments are included in city funding sources in the Financing section.

Assessments are calculated based on the City's Roadway Construction and Rehabilitation Financing Policy. (CD - ENGPW - 4.2, updated 10-25-17

# **Financing**

The City's share of the roadway construction, storm sewer, and easement costs will be financed by the City's Phase II Major Roadway Special Assessment Fund, Central District Trunk Storm Sewer Fund, Water and Sanitary Sewer Utility Fund, and special assessments.

Roadway	Major Roadway Special Assessment Fund 428	Central District Trunk Storm Sewer Fund	Water and Sanitary Sewer Utility Fund	Assessments	Total
CSAH 19 (Woodbury Drive)	\$989,681	\$319,500	\$119,086	\$161,959	\$1,590,226
Dale Road	\$1,604,947	\$430,500	\$0	\$106,332	\$2,141,779
City Funds Total	\$2,594,628	\$750,000	\$119,086	\$268,291	\$3,732,005
				County Project Cost	\$7,730,892
				Project Total	\$11,462,897

# Schedule

The following schedule summarizes the anticipated project schedule:

Proposed	Schedule
Order preliminary report	April 8, 2020
Approve preliminary report	January 13, 2021
Public Improvement Hearing	January 13, 2021
Open bids	February, 2021
Assessment hearing	March, 2021
Begin construction	May, 2021
Complete Construction	November, 2021

### **Feasibility and Recommendations**

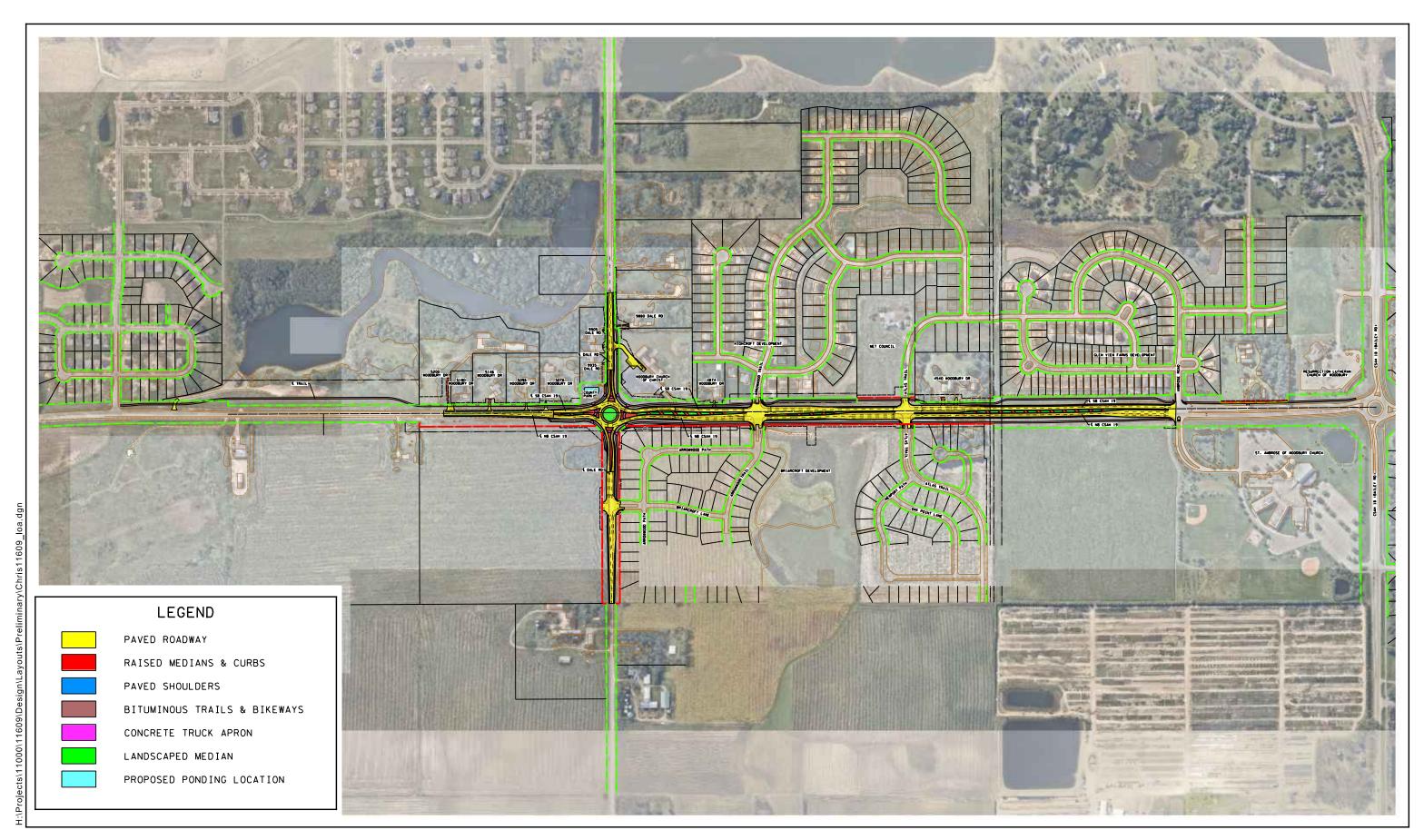
Based on the information contained in this report, it can be concluded that the construction of CSAH 19 (Woodbury Drive) and Dale Road are technically feasible. The improvements are necessary to improve the mobility, access, and safety of the roadways in the institutional and residential areas. This project is cost effective based on the existing conditions and acceptable standards proposed to construct the improvements.

It is recommended the report be approved and used as a guide for the layout, design, and cost allocation for the improvements.

Because properties within the City of Woodbury benefit from the improvements, and the project will be partially funded through assessments, it will be necessary to hold a public improvement hearing to receive comment on the proposed project.

# **Appendix**

# **A: Project Layout**



### **B: Construction Cost Estimate**

				TOTAL	,	WASHINGTON COUN	TEMENT OF E				CITY OF	WOODBURY				
ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	PROJECT QUANTITIES		SAP 082-619-030		SAP 1	92-020-029		SAP 192-119-0	03		NON-PART		ESTIMATED TOTAL AMOUNT
			FRICE	ESTIMATED	ROADWAY		SHARE	ROADWAY	SHARE	ROADWAY	STORM	SHARE	ROADWAY		SHARE	
2021.501	MOBILIZATION	LUMP SUM	\$400,000.00		0.68		\$272,000.00	0.12	\$48,000.00	0.19		\$76,000.00		0.01	\$4,000.00	\$400,000.00
2031.502	FIELD OFFICE TYPE D	EACH	\$100,000.00	1	0.68		\$68,000.00	0.12	\$12,000.00	0.19		\$19,000.00		0.01	\$1,000.00	\$100,000.00
2101.505	CLEARING	ACRE	\$3,000.00	1.06	0.75		\$2,250.00			0.31		\$930.00				\$3,180.00
2101.505 2101.524	GRUBBING CLEARING	ACRE TREE	\$3,000.00 \$250.00	1.06 81	0.75 48		\$2,250.00 \$12,000.00			0.31 33		\$930.00 \$8,250.00				\$3,180.00 \$20,250.00
2101.524 2102.503	GRUBBING PAVEMENT MARKING REMOVAL	TREE LIN FT	\$200.00 \$1.00	81 30561	48 30561		\$9,600.00 \$30,561.00			33		\$6,600.00				\$16,200.00 \$30,561.00
2102.518	PAVEMENT MARKING REMOVAL	SQ FT	\$3.00	84	84		\$252.00									\$252.00
2104.502 2104.502	REMOVE PERMANENT BARRICADE REMOVE CASTING	EACH EACH	\$50.00 \$185.00	1 3	1 3		\$50.00 \$555.00									\$50.00 \$555.00
				Ü			ψ000.00									
	REMOVE GATE VALVE & BOX REMOVE HYDRANT	EACH EACH	\$300.00 \$375.00	2										2	\$600.00 \$750.00	\$600.00 \$750.00
2104.502	REMOVE DRAINAGE STRUCTURE	EACH	\$500.00	6	4		\$2,000.00			2		\$1,000.00		-	<b>9730.00</b>	\$3,000.00
2104.502 2104.502	REMOVE SIGN TYPE C REMOVE SIGN TYPE D	EACH EACH	\$65.00 \$110.00	30	18		\$1,170.00 \$220.00			12		\$780.00				\$1,950.00 \$220.00
		EACH	\$110.00	2			\$220.00									\$220.00
	REMOVE SIGN TYPE SPECIAL	EACH	\$75.00	1						1		\$75.00				\$75.00
	REMOVE PICNIC TABLE REMOVE MAIL BOX SUPPORT	EACH EACH	\$500.00 \$50.00	1 12	1 8		\$500.00 \$400.00			4		\$200.00				\$500.00 \$600.00
2104.502	SALVAGE VEHICULAR GATE	EACH	\$500.00	2	2		\$1,000.00									\$1,000.00
2104.502	SALVAGE BOULDER	EACH	\$50.00	1	1	+	\$50.00			1		<b> </b>				\$50.00
2104.502	SALVAGE SIGN	EACH	\$55.00	1	1		\$55.00									\$55.00
2104.502	SALVAGE SIGN TYPE C SALVAGE SIGN TYPE SPECIAL	EACH EACH	\$55.00 \$55.00	3 2	2	+	\$165.00 \$110.00			1		<del>                                     </del>				\$165.00 \$110.00
2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	\$3.00	1501	1297		\$3,891.00			204		\$612.00				\$4,503.00
2104.503	REMOVE PIPE CULVERTS	LIN FT	\$10.00	1004	849	+	\$8,490.00			155		\$1,550.00				\$10,040.00
2104.503	REMOVE WATER MAIN	LIN FT	\$5.00	24										24	\$120.00	\$120.00
2104.503 2104.503	REMOVE SEWER PIPE (STORM) REMOVE CURB AND GUTTER	LIN FT LIN FT	\$10.00 \$5.00	285 917	218 809	<del>                                     </del>	\$2,180.00 \$4,045.00			67 108		\$670.00 \$540.00	1			\$2,850.00 \$4,585.00
2104.503	REMOVE CORB AND GOTTER REMOVE STONE RETAINING WALL	LIN FT	\$30.00	13	13		\$390.00			108		\$340.00				\$4,383.00
2104.503	REMOVE FENCE	LIN FT	\$5.00	492	492		\$2,460.00									\$2,460.00
2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$10.00	15	15		\$150.00									\$150.00
2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	\$4.00	1049	938		\$3,752.00			111		\$444.00				\$4,196.00
2104.504 2104.518	REMOVE BITUMINOUS PAVEMENT REMOVE BITUMINOUS WALK	SQ YD SQ FT	\$5.00 \$1.50	40509 1729	32370 1384		\$161,850.00 \$2,076.00			8139 345		\$40,695.00 \$517.50				\$202,545.00 \$2,593.50
2104.518	REMOVE CONCRETE WALK	SQ FT	\$2.00	1402	1252		\$2,504.00			150		\$300.00				\$2,804.00
2106.507	EXCAVATION - COMMON	CU YD	\$16.00	55882	33896		\$542,336.00	11962	\$191,392.00	10024		\$160,384.00				\$894,112.00
2106.507	EXCAVATION - SUBGRADE	CU YD	\$10.00	28413	21239		\$212,390.00	217	\$2,170.00	6957		\$69,570.00				\$284,130.00
2106.507 2106.507	GRANULAR EMBANKMENT (CV) SELECT GRANULAR EMBANKMENT (CV)	CU YD	\$188.00 \$16.00	16 41933	16 31288		\$3,008.00 \$500,608.00	982	\$15,712.00	9663		\$154,608.00				\$3,008.00 \$670,928.00
2106.507	COMMON EMBANKMENT (CV)	CU YD	\$11.35	75176	38996		\$442,604.60	26881	\$305,099.35	9299		\$105,543.65				\$853,247.60
		ROAD STA														
2111.519 2118.507	TEST ROLLING AGGREGATE SURFACING (CV) CLASS 1 MOD	CU YD	\$100.00 \$40.00	122.7 167	93.8 133		\$9,380.00 \$5,320.00			28.9 34		\$2,890.00 \$1,360.00				\$12,270.00 \$6,680.00
2118.609	AGGREGATE SURFACING SPECIAL	TON	\$11.35	50	50		\$567.50									\$567.50
2123.61 2130.523	STREET SWEEPER (WITH PICKUP BROOM) WATER	HOUR M GALLON	\$150.00 \$40.00	100 200	100 200		\$15,000.00 \$8,000.00									\$15,000.00 \$8,000.00
	AGGREGATE BASE (CV) CLASS 5 BITUMINOUS PATCHING MIXTURE	CU YD TON	\$25.00 \$65.00	15389 100	12086 100		\$302,150.00 \$6.500.00	1295	\$32,375.00	2008		\$50,200.00				\$384,725.00 \$6.500.00
2232.504	MILL BITUMINOUS SURFACE (2.0")	SQ YD	\$6.00	722	722		\$4,332.00									\$4,332.00
2301.504	CONCRETE PAVEMENT 8.0" SUPPLEMENTAL PAVEMENT REINFORCEMENT	SQ YD POUND	\$75.00 \$2.00	8108 7067	4930 3514		\$369,750.00			3178 3553		\$238,350.00 \$7,106.00				\$608,100.00 \$14,134.00
2301.300	SOFFLEMENTAL FAVEMENT REINFORGEMENT	FOUND	\$2.00	7067	3314		\$7,028.00			3333		\$7,106.00				\$14,134.00
2301.602	1.25" DOWEL BAR	EACH	\$10.00	4261	2546		\$25,460.00			1715		\$17,150.00				\$42,610.00
2301.602	DRILL & GROUT REINF BAR (EPOXY COATED) TYPE SP 9.5 WEARING COURSE MIX (3;B)	EACH TON	\$10.00 \$65.00	234 1023	71 729		\$710.00 \$47.385.00	71	\$710.00	92 294		\$920.00 \$19.110.00				\$2,340.00 \$66.495.00
2360.509	TYPE SP 9.5 WEARING COURSE MIX (3;F)	TON	\$60.00	142	118		\$7,080.00			24		\$1,440.00				\$8,520.00
2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3;B)	TON	\$70.00	3838	3838		\$268,660.00									\$268,660.00
2360.509	TYPE SP 12.5 WEARING COURSE MIX (3;C)	TON	\$60.00	10213	7834		\$470,040.00			2379		\$142,740.00				\$612,780.00
2360.509	TYPE SP 12.5 WEARING COURSE MIX (3;F) STRUCTURAL CONCRETE (1G52)	TON CU YD	\$65.00 \$1,000.00	177	147		\$9,555.00 \$14.000.00			30		\$1,950.00				\$11,505.00 \$14,000.00
2411.507	STRUCTURAL CONCRETE (3G52)	CU YD	\$1,100.00	13	13		\$14,300.00									\$14,300.00
2411.508	REINFORCEMENT BARS	POUND	\$1.75	1081	1081	++	\$1,891.75			<b> </b>		<del> </del>				\$1,891.75
2411.508	REINFORCEMENT BARS (EPOXY COATED)	POUND	\$1.70	1124	1124		\$1,910.80									\$1,910.80
2411.601	STRUCTURE EXCAVATION SPECIAL SURFACE FINISH	LUMP SUM	\$5,000.00 \$108.00	1 28	1		\$5,000.00			1		<del>                                     </del>			-	\$5,000.00 \$3,024.00
2411.604 2451.607	MEDIUM FILTER AGGREGATE (CV)	SQ YD CU YD	\$108.00	28 41.8	28 41.8		\$3,024.00 \$1,337.60			1	1					\$3,024.00 \$1,337.60
2451.607	FINE FILTER AGGREGATE (CV)	CU YD	\$50.00	1198	950		\$47,500.00			248		\$12,400.00				\$59,900.00
2451.607	STRUCTURAL BACKFILL	CU YD	\$88.00	57	57	+	\$5,016.00			1		<del>                                     </del>				\$5,016.00
2501.502	12" RC PIPE APRON	EACH	\$900.00	4		2	\$1,800.00				2	\$1,800.00				\$3,600.00
2501.502 2501.502	15" RC PIPE APRON 18" RC PIPE APRON	EACH EACH	\$1,000.00 \$1,100.00	4 2		4 2	\$4,000.00 \$2,200.00					<del>                                     </del>				\$4,000.00 \$2,200.00
2501.502	21" RC PIPE APRON	EACH	\$1,200.00	1		1	\$1,200.00									\$1,200.00
2501.502	24" RC PIPE APRON	EACH	\$1,300,00	2		2	\$2.600.00					-				\$2.600.00
2501.502	27" RC PIPE APRON	EACH	\$1,400.00	1		1	\$1,400.00			<u> </u>			<u> </u>			\$1,400.00
2501.502	15" RC SAFETY APRON	EACH	\$800.00	3		1	\$800.00			_	2	\$1,600.00				\$2,400.00
2502.502 2502.503	4" PRECAST CONCRETE HEADWALL 4" PERF TP PIPE DRAIN	EACH LIN FT	\$176.00 \$9.00	3 19519	1 15488	+	\$176.00 \$139,392.00			2 4031		\$352.00 \$36,279.00				\$528.00 \$175,671.00
2502.503	6" PERF TP PIPE DRAIN 12" PERF TP PIPE DRAIN	LIN FT LIN FT	\$18.00 \$55.00	422 250	211 125	+	\$3,798.00 \$6,875.00	211 125	\$3,798.00 \$6,875.00	1		<del>                                     </del>	1			\$7,596.00 \$13,750.00
2502 503	0 11 10 E 210 W		\$50.00	32	,20	22	\$1,100.00	.20	φυ,υτυ.υυ		10	\$500.00	<del>                                     </del>			\$1,600.00
2502.503 2503.503 2503.503	12" RC PIPE SEWER DES 3006 CL V 15" RC PIPE SEWER DES 3006 CL V	LIN FT LIN FT	\$50.00 \$54.00	5411		4481	\$241,974.00				930	\$50,220.00				\$292,194.00

1 12/5/2020

				TOTAL	١	WASHINGTON COL	ATEMENT OF I		-		CITY OF	WOODBURY				
ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT	PROJECT QUANTITIES		SAP 082-619-030	`	SAD 10	92-020-029		SAP 192-119-0		1		ESTIMATED TOTAL AMOUNT	
			FRICE	ESTIMATED	ROADWAY	STORM	SHARE	ROADWAY	SHARE	ROADWAY	STORM	SHARE	ROADWAY	NON-PART NON-PART	SHARE	
2503.503 2503.503	18" RC PIPE SEWER DES 3006 CL III 18" RC PIPE SEWER DES 3006 CL IV	LIN FT	\$50.00 \$54.00	758 222		758 222	\$37,900.00 \$11,988.00									\$37,900.00 \$11,988.00
2503.503	21" RC PIPE SEWER DES 3006	LIN FT	\$54.00	451		451	\$24,354.00									\$24,354.00
2503.503	21" RC PIPE SEWER DES 3006 CL IV	LIN FT	\$62.00	229		229	\$14,198.00									\$14,198.00
2503.503	24" RC PIPE SEWER DES 3006	LIN FT	\$64.00	881		881	\$56,384.00									\$56,384.00
2503.503	24" RC PIPE SEWER DES 3006 CL III	LIN FT	\$70.00	238		238	\$16,660.00									\$16,660.00
2503.503	27° RC PIPE SEWER DES 3006	LIN FT	\$75.00	403		403	\$30,225.00									\$30,225.00
2503.503 2503.602	27" RC PIPE SEWER DES 3006 CL IV CONNECT TO EXISTING STORM SEWER	LIN FT EACH	\$85.00 \$1.000.00	63		63 5	\$5,355.00 \$5,000.00				1	\$1.000.00				\$5,355.00 \$6,000.00
2503.602	CONNECT INTO EXISTING DRAINAGE STRUCTURE	EACH	\$1,400.00	3		2	\$2,800.00				1	\$1,400.00				\$4,200.00
2504.601 2504.602	IRRIGATION SYSTEM CONNECT TO EXISTING WATER MAIN	LUMP SUM EACH	\$15,000.00 \$500.00	3	0.5		\$7,500.00							0.5	\$7,500.00 \$1,500.00	\$15,000.00 \$1,500.00
2504.602	HYDRANT	EACH	\$4,500.00	1										1	\$4,500.00	\$4,500.00
2504.602 2504.602	RELOCATE HYDRANT & VALVE	EACH EACH	\$800.00 \$982.00	1										1	\$800.00 \$1.964.00	\$800.00 \$1.964.00
2504.602	ADJUST HYDRANT	EACH	\$982.00											2	\$1,964.00	\$1,964.00
2504.602	ADJUST GATE VALVE & BOX	EACH	\$683.00	12										12	\$8,196.00	\$8,196.00
2504.602	1.5" CORPORATION STOP	EACH	\$500.00	1										1	\$500.00	\$500.00
2504.602 2504.602	6" GATE VALVE AND BOX 8" GATE VALVE AND BOX	EACH EACH	\$1,500.00 \$1,800.00	1										1	\$1,500.00 \$1,800.00	\$1,500.00 \$1,800.00
	1.5" CURB STOP AND BOX	EACH	\$750.00	1										1	\$750.00	\$750.00
2504.603	1.5" TYPE K COPPER PIPE	LIN FT	\$15.00	136						+	1		1	136	\$2.040.00	\$2.040.00
2504.603	6" WATERMAIN DUCTILE IRON CL 51	LIN FT	\$15.00 \$65.00	136						<del>                                     </del>	-			136	\$2,040.00	\$2,040.00 \$1,885.00
2504.603	8" WATERMAIN DUCTILE IRON CL 51	LIN FT	\$75.00	374										374	\$28,050.00	\$28,050.00
2504.603	18" STEEL CASING PIPE	LIN FT	\$350.00	180						1	1		1	180	\$63,000.00	\$63,000.00
2504.604	4" POLYSTYRENE INSULATION	SQ YD	\$50.00	14.2	7.1		\$355.00			7.1		\$355.00				\$710.00
2504.608	DUCTILE IRON FITTINGS	LB	\$10.00	910										910	\$9,100.00	\$9,100.00
2506.502	CONST DRAINAGE STRUCTURE DESIGN SPEC 1	EACH	\$5,000.00	2		2	\$10,000.00									\$10,000.00
2506.502 2506.502	CONST DRAINAGE STRUCTURE DESIGN SPEC 2 CASTING ASSEMBLY	EACH EACH	\$10,000.00 \$800.00	1 157		1 138	\$10,000.00 \$110,400.00				19	\$15,200.00				\$10,000.00 \$125,600.00
2506.502	CONST DRAINAGE STRUCTURE DESIGN F	LIN FT	\$325.00	297.4		297.4	\$96.655.00				19	\$15,200.00				\$125,600.00 \$96.655.00
2506.503	CONST DRAINAGE STRUCTURE DESIGN G	LIN FT	\$350.00	325		325	\$113,750.00									\$113,750.00
2506.503 2506.503	CONST DRAINAGE STRUCTURE DESIGN H CONST DRAINAGE STRUCTURE DESIGN SD-48	LIN FT	\$300.00 \$500.00	6.7 20.1		6.7 20.1	\$2,010.00 \$10.050.00									\$2,010.00 \$10.050.00
2506.503	CONST DRAINAGE STRUCTURE DESIGN SD-60	LIN FT	\$650.00	9.9		9.9	\$6,435.00									\$6,435.00
2506.503	CONST DRAINAGE STRUCTURE DESIGN SPEC 3	LIN FT	\$300.00	24.2							24.2	\$7,260.00				\$7,260.00
2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECI.	LIN FT	\$500.00	49.1							49.1	\$24.550.00				\$24.550.00
2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECI.	LIN FT	\$450.00	4.2							4.2	\$1,890.00				\$1,890.00
2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECI.	LIN FT	\$450.00	9.4							9.4	\$4,230.00				\$4,230.00
2506.503	CONST DRAINAGE STRUCTURE DES 48-4020	LIN FT	\$350.00	31.2		31.2 36.5	\$10,920.00									\$10,920.00
2506.503	CONST DRAINAGE STRUCTURE DES 54-4020	LIN FT	\$450.00	36.5		30.5	\$16,425.00									\$16,425.00
2506.503	CONST DRAINAGE STRUCTURE DES 60-4020	LIN FT	\$500.00	15.4		15.4	\$7,700.00									\$7,700.00
2506.503	CONST DRAINAGE STRUCTURE DES 66-4020	LIN FT	\$600.00	6.9		6.9	\$4,140.00									\$4,140.00
2506.503 2511.504	CONST DRAINAGE STRUCTURE DES 72-4020 GEOTEXTILE FILTER TYPE 4	LIN FT SQ YD	\$700.00 \$12.00	15.5 44.3		15.5 44.3	\$10,850.00 \$531.60									\$10,850.00 \$531.60
2511.507	RANDOM RIPRAP CLASS II	CU YD	\$80.00	3.2		3.2	\$256.00									\$256.00
		011110				7.8	*****									
2511.507 2521.518	RANDOM RIPRAP CLASS III 4" CONCRETE WALK	CU YD SQ FT	\$80.00 \$5.00	7.8 39431	33434	7.8	\$624.00 \$167,170.00			5997		\$29,985.00				\$624.00 \$197,155.00
2521.518	6" CONCRETE WALK	SQ FT	\$10.00	14944	5802		\$58,020.00	3691	\$36,910.00	5451		\$54,510.00				\$149,440.00
2521.518 2531.503	3" BITUMINOUS WALK CONCRETE CURB & GUTTER DESIGN B424	SQ FT LIN FT	\$1.65	130129 19026	59236 8251		\$97,739.40 \$165.020.00	59236 8251	\$97,739.40 \$165.020.00	11657 2524		\$19,234.05 \$50,480.00				\$214,712.85 \$380,520,00
2531.503	CONCRETE CORB & GOTTER DESIGN B424	LIN F I	\$20.00	19026	8251		\$165,020.00	8251	\$165,020.00	2524		\$50,480.00				\$380,520.00
2531.503	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	\$25.00	556	230		\$5,750.00	230	\$5,750.00	96		\$2,400.00				\$13,900.00
2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	\$25.00	2349	29		\$725.00	29	\$725.00	2291	1	\$57,275.00	1			\$58,725.00
2531.503 2531.503	CONCRETE CURB & GUTTER DESIGN D412 CONCRETE CURB & GUTTER DESIGN R424	LIN FT LIN FT	\$11.75 \$25.00	434 376	434 188		\$5,099.50 \$4,700.00			188	1	\$4,700.00	1			\$5,099.50 \$9,400.00
2531.503	CONCRETE CURB DESIGN SPECIAL	LIN FT	\$25.00	44	22		\$550.00	22	\$550.00	100		V1,100.00				\$1,100.00
0504.00*	CONODETE CUIDO DECICIONA	LINIET	600.00	200	470		#F F00 00			05	1	60.040.05	1			ên 570 nn
2531.603 2531.618	CONCRETE CURB DESIGN V TRUNCATED DOMES	LIN FT SQ FT	\$32.00 \$60.00	268 920	173 278		\$5,536.00 \$16.680.00	277	\$16.620.00	95 365	+	\$3,040.00 \$21,900.00	1			\$8,576.00 \$55,200.00
2533.503	PORTABLE PRECAST CONC BARRIER DES 8337	LIN FT	\$17.00	4037.5	3850		\$65,450.00	211	\$10,020.0U	187.5		\$3,187.50				\$68,637.50
2533.503	RELOCATE PORT PRECAST CONC BAR DES 8337	LIN FT	\$10.00	3125	3125		\$31,250.00				1		1			\$31,250.00
2540.602	MAIL BOX SUPPORT	EACH	\$140.00	12	7		\$980.00			5	1	\$700.00				\$1,680.00
2545.502	LIGHTING UNIT TYPE SPECIAL 1	EACH	\$4,150.00	10	4		\$16,600.00			6		\$24,900.00				\$41,500.00
2545.502	LIGHT FOUNDATION DESIGN E MODIFIED	EACH	\$972.63	10	4		\$3,890.52			6		\$5,835.78	1			\$9,726.30
2545.502	SERVICE CABINET -TYPE L1	EACH	\$6,175.25	1						1	1	\$6,175.25	1			\$6,175.25
2545.502 2545.502	EQUIPMENT PAD B HANDHOLE	EACH EACH	\$1,368.93 \$1,488.36	3	1		\$1,488.36			2	-	\$1,368.93 \$2,976.72				\$1,368.93 \$4,465.08
				Ŭ			Ţ.,.OO.OO									
2545.503	2" RIGID STEEL CONDUIT	LIN FT	\$19.15	61			#0.0== ·=			61	1	\$1,168.15	1			\$1,168.15
2545.503 2545.503	2" NON-METALLIC CONDUIT 3" NON-METALLIC CONDUIT	LIN FT LIN FT	\$4.94 \$18.77	1263 60	747 37		\$3,690.18 \$694.49			516 23	1	\$2,549.04 \$431.71	1			\$6,239.22 \$1,126,20
2545.503	UNDERGROUND WIRE 1/C 2 AWG	LIN FT	\$3.73	223						223		\$831.79				\$831.79
2545.503	UNDERGROUND WIRE 1/C 6 AWG	LIN FT	\$1.84	6210	3589		\$6,603.76			2621		\$4,822.64				\$11,426.40
2545.601	TEMPORARY LIGHTING SYSTEM	LUMP SUM	\$20,000.00	1	1		\$20,000.00			+	1		1			\$20,000.00
2554.503	PERMANENT BARRICADES	LIN FT	\$70.00	40						40	1	\$2,800.00	1			\$2.800.00
2557.503	WIRE FENCE, DESIGN SPECIAL VINYL COATED	LIN FT	\$80.00	40	40		\$3,200.00					22,000.00				\$3,200.00
2557.602	INSTALL VEHICULAR GATE	EACH	\$850.00	2	2		\$1,700.00	0.10	60 4		1	60 0	1	0	f00	\$1,700.00
2563.601 2563.601	TRAFFIC CONTROL SUPERVISOR TRAFFIC CONTROL	LUMP SUM LUMP SUM	\$20,000.00 \$250,000.00	1 1	0.68 0.68		\$13,600.00 \$170,000.00	0.12 0.12	\$2,400.00 \$30,000.00	0.19 0.19	1	\$3,800.00 \$47,500.00	1	0.01	\$200.00 \$2,500.00	\$20,000.00 \$250,000.00
2000.001			Ψ2.00,000.00		0.00			0.12	400,000.00	5.15				0.01	QE,000.00	
2563.602 2563.602	FLEXIBLE DELINEATOR TYPE A	EACH	\$60.00	30	24		\$1,440.00			6		\$360.00				\$1,800.00
	PORTABLE CONCRETE BARRIER DELINEATOR	EACH	\$8.40	323	308		\$2,587.20 \$8,660.00			15		\$126.00	1	l		\$2,713.20

2 12/5/2020

#### ENGINEERS ESTIMATE CSAH 19 MOBILITY AND SAFETY PROJECT

								ESTIMATED O							ı	
ITEM NO.	ITEM DESCRIPTION	UNIT	UNIT	TOTAL PROJECT	v	ASHINGTON CO				_	CITY OF WOO	ODBURY				ESTIMATED TOTAL AMOUNT
ITEM NO.	HEM DESCRIPTION	UNII	PRICE	QUANTITIES		SAP 082-619-03		SAP 19	2-020-029		SAP 192-119-003			NON-PART		ESTIMATED TOTAL AMOUNT
				ESTIMATED	ROADWAY	STORM	SHARE	ROADWAY	SHARE	ROADWAY	STORM	SHARE	ROADWAY	NON-PART	SHARE	
2563.61	FLAGGER	UNIT DAY	\$110.00	400	400		\$44,000.00									\$44,000.00
	TEMPORARY IMPACT ATTENUATOR	ASSEMBLY	\$2,000.00	6	6		\$12,000.00									\$12,000.00
				_	_											
	RELOCATE TEMPORARY IMPACT ATTENUATOR CONSTRUCTION SIGN SPECIAL	ASSEMBLY SQ FT	\$2,000.00 \$20.00	5 56.5	5 54.5		\$10,000.00 \$1,090.00			2		\$40.00				\$10,000.00 \$1,130.00
2564.502	INSTALL SIGN TYPE C	EACH	340	7	7		\$2,380.00					\$40.00				\$2,380.00
2564.518	SIGN PANELS TYPE C	SQ FT	\$60.00	592.6	396		\$23,760.00			196.6		\$11,796.00				\$35,556.00
2564.518	SIGN PANELS TYPE D	SQ FT	\$60.00	72	52.5		\$3,150.00			19.5		\$1,170.00				\$4,320.00
2564.602	INSTALL SIGN TYPE SPECIAL	EACH	\$200.00	2	2		\$400.00									\$400.00
2564.602	DELINEATOR / MARKER PANEL	EACH	\$120.00	12	8		\$960.00			4		\$480.00				\$1,440.00
	DELINEATOR / MARKER SIGN PRUNE TREES	EACH HOUR	\$180.00 \$20.00	4	2		\$360.00			2		\$360.00				\$720.00 \$80.00
	STABILIZED CONSTRUCTION EXIT	LUMP SUM	\$20.00	1	0.68		\$80.00 \$6,800.00	0.12	\$1,200.00	0.19		\$1,900.00		0.01	\$100.00	\$10,000.00
												***************************************				***************************************
	EROSION CONTROL SUPERVISOR	LUMP SUM	\$10,000.00	1	0.68		\$6,800.00	0.12	\$1,200.00	0.19		\$1,900.00		0.01	\$100.00	\$10,000.00
2573.502 2573.502	STORM DRAIN INLET PROTECTION CULVERT END CONTROLS	EACH EACH	\$150.00 \$200.00	159 3	104		\$15,600.00 \$600.00	18	\$2,700.00	37		\$5,550.00				\$23,850.00 \$600.00
2573.503	SILT FENCE; TYPE MS	LIN FT	\$2.00	13023	9443		\$18,886.00	1666	\$3,332.00	1914		\$3,828.00				\$26,046.00
2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LIN FT	\$3.00	2527	955		\$2,865.00	168	\$504.00	1404		\$4,212.00				\$7,581.00
2574.505	OLIDOOU NO	ACRE	\$500.00	0.1	0.1		\$50.00									\$50.00
2574.505	SUBSOILING SOIL BED PREPARATION	ACRE	\$150.00	16.4	12.1		\$1,815.00	2.1	\$315.00	2.2		\$330.00				\$2,460.00
2574.507	FILTER TOPSOIL BORROW	CU YD	\$50.00	43	22		\$1,100.00	21	\$1,050.00	2.2		4000.00				\$2,150.00
2574.507	BOULEVARD TOPSOIL BORROW	CU YD	\$45.00	1972	1701		\$76,545.00			271		\$12,195.00				\$88,740.00
2574.507	COMPOST GRADE 2	CU YD	\$60.00	113	57		\$3,420.00	56	\$3,360.00							\$6,780.00
2574.508	FERTILIZER TYPE 3	POUND	\$0.49	5441	4000		\$1,960.00	706	\$345.94	735		\$360.15				\$2,666.09
	FERTILIZER TYPE 4	POUND	\$0.51	23.1	19.6		\$10.00	3.5	\$1.79			\$000.10				\$11.78
2575.505	SEEDING	ACRE	\$100.00	16.4	12.1		\$1,210.00	2.1	\$210.00	2.2		\$220.00				\$1,640.00
2575.505 2575.506	WEED SPRAYING WEED SPRAY MIXTURE	ACRE GALLON	\$329.69 \$138.70	8.1 8.1	6		\$1,978.14 \$832.20	1	\$329.69 \$138.70	1.1		\$362.66 \$152.57				\$2,670.49 \$1,123.47
2373.300	WEED SPRAT MIXTURE	GALLON	\$130.70	0.1			\$032.20	'	\$130.70	1.1		\$102.07				\$1,123.47
2575.508	SEED MIXTURE 25-131	POUND	\$4.00	2314	1697		\$6,788.00	300	\$1,200.00	317		\$1,268.00				\$9,256.00
2575.508	SEED MIXTURE 25-141	POUND	\$4.00	296	218		\$872.00	39	\$156.00	39		\$156.00				\$1,184.00
	SEED MIXTURE 33-261 HYDRAULIC REINFORCED FIBER MATRIX	POUND	\$25.00 \$1.50	5.4 2384	4.6 1748		\$115.00 \$2,622.00	0.8 308	\$20.00 \$462.00	328		\$492.00				\$135.00 \$3,576.00
	RAPID STABILIZATION METHOD 3	M GALLON	\$200.00	1.4	0.5		\$100.00	0.1	\$20.00	0.8		\$160.00				\$280.00
	ROLLED EROSION PREVENTION CATEGORY 20	SQ YD	\$2.00	78970	58132		\$116,264.00	10258	\$20,516.00	10580		\$21,160.00				\$157,940.00
0504 500	DEMOVADI E DDEFORM DAVEMENT MADIZINO TADE	UNIET	<b>60.00</b>	0500	2500		£40 500 00									640 500 00
	REMOVABLE PREFORM PAVEMENT MARKING TAPE REMOVABLE PREFORM PLASTIC MASK (BLACK)	LIN FT LIN FT	\$3.00 \$3.00	3500 2034	3500 2034		\$10,500.00 \$6,102.00									\$10,500.00 \$6,102.00
	4" SOLID LINE PAINT	LIN FT	\$0.15	16681	16681		\$2,502.15									\$2,502.15
	12" SOLID LINE PAINT	LIN FT	\$3.00	40	40		\$120.00									\$120.00
2582.503	4" DBLE SOLID LINE PAINT	LIN FT	\$0.20	8342	8342		\$1,668.40									\$1,668.40
2582.503	4" SOLID LINE MULTI COMP GR IN (WR)	LIN FT	\$0.65	27880	21460		\$13,949.00			6420		\$4,173.00				\$18,122.00
2582.503	24" SOLID LINE MULTI COMP GR IN (WR)	LIN FT	\$14.00	290	190		\$2,660.00			100		\$1,400.00				\$4,060.00
	4" BROKEN LINE MULTI COMP GR IN (WR)	LIN FT	\$0.65	1460	1340		\$871.00			120		\$78.00				\$949.00
	4" DBLE SOLID LINE MULTI COMP GR IN (WR) 4" SOLID LINE MULTI COMP GR IN (WR) CONTRAST	LIN FT LIN FT	\$1.50 \$8.50	3480 860	1610 660		\$2,415.00 \$5,610.00			1870 200		\$2,805.00 \$1,700.00				\$5,220.00 \$7,310.00
2302.303	4 SOLID LINE WIDETT COWN SK IN (WK) CONTRAST	LINIT	\$6.50	000	000		\$5,010.00			200		\$1,700.00				\$7,310.00
2582.503	4" BROKEN LINE MULTI COMP GR IN (WR) CONTRAS"	LIN FT	\$3.00	30	30		\$90.00									\$90.00
2582.503	4" BROKEN LINE PREFORM THERMO GR IN	LIN FT	\$18.00	110	110		\$1,980.00			450		£0.000.00				\$1,980.00
2582.503 2582.503	8" DOTTED LINE PREFORM THERMO GR IN CONTRAS 18" DOTTED LINE PREFORM THERMO GR IN CONTRA	LIN FT LIN FT	\$20.00 \$22.00	210 190	60 70		\$1,200.00 \$1,540.00	1		150 120		\$3,000.00 \$2,640.00				\$4,200.00 \$4,180.00
2582.518	PAVT MSSG PREF THERMO GR IN	SQ FT	\$28.00	428	310		\$8,680.00			118		\$3,304.00				\$11,984.00
	PAVT MSSG PREF THERMO GR IN CONT	SQ FT SQ FT	\$31.00	414	353		\$10,943.00			61		\$1,891.00				\$12,834.00
∠38∠.518	CROSSWALK PREF THERMO GR IN	SUFI	\$17.00	770	476		\$8,092.00	1		294		\$4,998.00				\$13,090.00
eparate Projec	LANDSCAPING	LUMP SUM	\$300,000.00	1	0.5		\$150,000.00	0.5	\$150,000.00							\$300,000.00
							-									
	ESTIMATED	TOTAL COST	-				\$6,535,192.15	1	\$1,160,906.87	1	Ç-	1.750.302.09			\$142,455,00	\$9,588,856.10

3 12/5/2020

# **C:** Benefited Properties Map



# Woodbury Management and Safety Project All Benifited Properties



